



**(2008-1980)**

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57	<b>:</b>
57	<b>1.3</b>
58	<b>2.3</b>
59	<b>:</b>
62	<b>1.4</b>
67	<b>2.4</b>
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25	.....(2005)	
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62	.....(ADF) -	

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Vector Autoregression ( VAR)

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**Abstract**  
**Foreign Direct Investment And Its Impact On Economic Growth In**  
**Jordan During ( 1980-2008)**  
**Muhammad Al Rawashdeh**  
**Mu'tah University**

This study aimed at identify the impact of foreign direct investment (FDI) on economic growth in Jordan during the period (1980-2008) where the researcher test the objectives of the study, which centered on the statement of the impact of FDI in GDP in Jordan, and identify the impact of trade liberalization and its role in creating an appropriate environment to attract foreign direct investment into Jordan.

The researcher adopted the methodology of Vector Auto Regression (VAR), which includes the following standard tests: unit root test to examine the stability, Granger causality test, analysis of variance Decomposition, Johansen test, responsive function, After the testing results indicated the following:

1. The results of the test of causation that the foreign investment and trade liberalization, a positive effect on the rate of economic growth in Jordan.
2. The results of the response function that there is positive impact of foreign investment and trade openness on economic growth in Jordan, and these findings are consistent with many previous studies on the impact of foreign investment and trade openness on economic growth.

The study recommended the following:

- 1 - the need for work on creating a comprehensive national strategy to attract foreign investments to Jordan, especially in the industrial sector.
- 2 - Focus on foreign investments that include job opportunities for Jordanian citizens.
- 3 - Continue the program of trade openness as a great ability in the promotion of foreign investments.
- 4 - The need to focus on items that SUPPORT Jordan to gain competitive advantage and maintaining direct foreign investment.

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(Restrictive Clauses )

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International Enterprises

Foreign Firms

Multinational Corporations MNCs

## Transnational Corporations TNCs

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(Dunning)

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%6.4	%12.3
%8	%7.5
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%26	%14 GDP
%22	%21 (GDP )
2400	1200 ( ) GDP
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	74,448	2002	
	436,113	2003	
	650,856	2004	
	1531,40	2005	
	2282,5	2006	
	1301,3	2007	
	1376,2	2008	
	(2009,	:	)

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1934

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1073,28	4,54	9,49	2,36	286,39	770,53
688,40		234,96		20,31	433,12
12,96				0,68	12,28
45,05					45,05
85,78					85,78
29,29			1,48		27,81
1934,18					

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(2008

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2007

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1761,10	377,20	38,19	89,49	279,91	976,32
406,72				259,01	147,71
17,17	1,50			2,55	13,11
28,32		1,50			26,82
6,99					6,99
0,20					0,20
2220,50					

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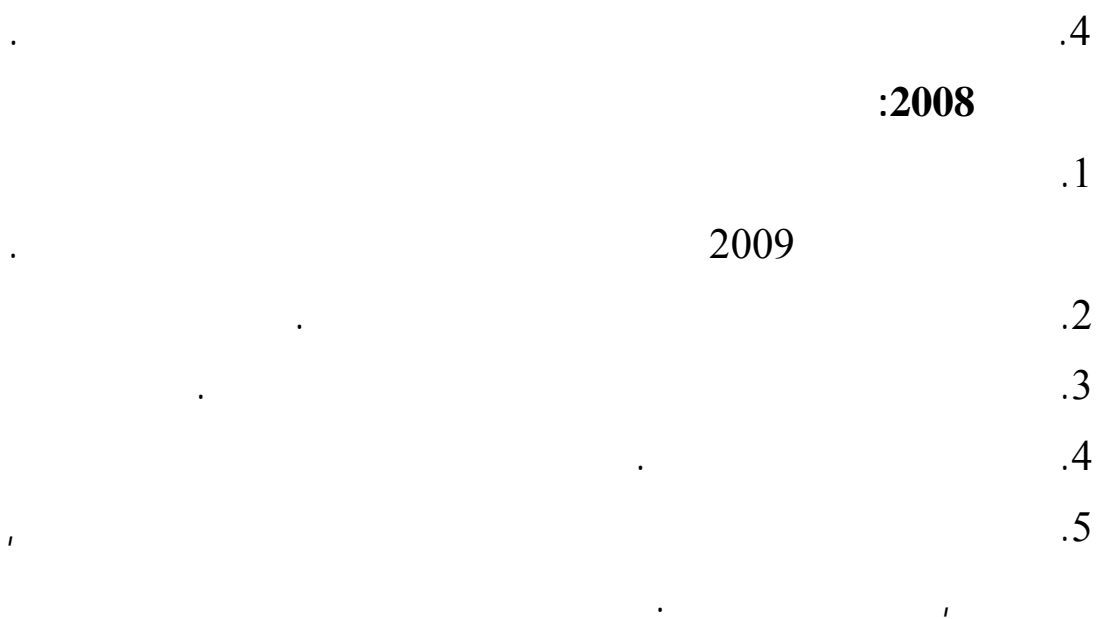
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.2007	30		.2
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<b>: 2007</b>			
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World Intellectual Property (WIPO)			.2
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2007 ( )

	2007/12	2006/12	
A A -	4	4	.1
A A -	4	4	.2
A +	5	5	.3
A +	5	5	.4
A	6	7	.5
A -	7	7	.6
BBB +	8	8	.7
BBB -	10	11	.8
BBB -	10	11	.9
BB +	11	11	.10
B	15	15	.11
B -	16	16	.12

.FT, Credit Ratings in Emerging, Markets, Issue, 2008 :

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2008

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2008			
2009	(GCR)	(134)	(48)
	2007	(131)	(49)
			50
			.(8)
		(8)	

2008 (134)	2007 (131)		
↑48	49		
↓47	46	<b>:Basic Requirements</b>	<b>.I</b>
↑27	32	Institutions	.1
↓44	42	Infrastructure	.2
↓111	100	Macroeconomic Stability	.3
↓56	53	Health and Primary Education	.4
↑63	64	<b>:Efficiency Enhancers</b>	<b>.II</b>
↑42	47	Higher Education and training	.5
↑44	48	Goods market efficiency	.6
↑93	94	Labor Market Efficiency	.7
↑48	55	Financial Market Sophistication	.8
↑57	63	Technological Readiness	.9
↓88	83	Market Size	.10
↑47	54	<b>Innovation &amp; Sophistication</b>	<b>.III</b>
↑47	58	Business Sophistication	.11
↑51	55	Innovation	.12
( 2009, : )			



(10)

2007	2008	
78	80	.1
77	68	.2
-	-	.3
80	88	.4
116	125	.5
161	146	.6
38	23	.7
154	143	.8
130	137	.9
-	-	.10
145	14	.11
55	49	.12
127	117	.13
-	-	.14
46	40	.15
86	85	.16
-	-	.17
165	126	.18
115	129	.19
148	157	.20
98	113	.21
17	17	

, [www.weforum.org](http://www.weforum.org), [www.doingbusiness.org](http://www.doingbusiness.org) : )  
 .(www.atkearney.com

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79	136	33	7	50	48	3	40	47	36	.1
67	99	99	8	19	68	72	39	85	121	.2
59	110	104	5	64	97	15	26	130	107	.3
139	144	24	4	107	115	8	65	38	158	.4
87	128	59	19	107	84	109	45	71	133	.5
117	121	83	33	83	48	92	53	113	132	.6
30	80	28	148	146	97	66	113	96	68	.7
83	41	128	84	122	158	44	63	35	175	.8
178	125	77	22	33	68	118	103	132	166	.9
45	117	114	157	64	115	156	118	108	131	.10
125	145	26	150	83	115	101	108	163	55	.11
60	114	67	132	158	135	102	165	88	51	.12
77	171	127	98	107	158	89	126	86	169	.13
178	150	157	37	107	135	40	60	104	164	.14
178	143	143	60	141	135	32	140	131	95	.15
126	159	66	51	173	135	131	130	92	165	.16
173	89	152	171	141	115	52	117	142	167	.17

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(2008)

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UNCTAD

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141                      20                      6

.2009

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(12)

Inward FDI Performance Index Ranking			Outward FDI Performance Index Ranking		
Economy	2006	2007	Economy	2006	2007
Hong Kong, China	2	1	Luxembourg	3	1
Bulgaria	3	2	Iceland	1	2
Iceland	4	3	Hong Kong, China	2	3
Malta	5	4	Switzerland	4	4
Bahamas	8	5	Panama	5	5
Jordan	7	6	Belgium	7	6
Singapore	6	7	Netherlands	6	7
Estonia	9	8	Kuwait	12	8
Georgia	15	9	Bahrain	11	9
Lebanon	13	10	Singapore	8	10
Guyana	20	11	Ireland	9	11
Bahrain	12	12	Sweden	13	12
Belgium	10	13	Spain	14	13
Gambia	11	14	France	18	14
Panama	16	15	Estonia	17	15
Mongolia	19	16	United Kingdom	21	16
Tajikistan	18	17	Israel	15	17
Cyprus	24	18	Norway	16	18
Moldova, Republic of	27	19	Austria	23	19
Egypt	31	20	Denmark	33	20

Source: UNCTAD.

(13)

.2006-1988

(13)

(2006-1988)

Under Performers	Below Potential	Above Potential	Front Runners
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1990-1988

1995-1993

2002-2000

2006-2002

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:(Mathur, 1992)

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:(Haddad and Harrison, 1993)

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:(Blomström, and Kokko, 1996)

(1989 – 1976)

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:(Bisat, El – Erian, and Helbling, 1997)

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(1996 –1971) (1996 –1986) (1985-1974)

Solow

:(Richardson, 1997)

:(Aitken, Hanson, and Harrison, **1997**)

.(1989 – 1976)

:(Hong, 1997)

.(1990-1970)

:(Borensztein, De Gregorio, and Lee, **1998**)

$$g_{it} = \alpha_0 + \alpha_1 FDI_{it} + \alpha_2 FDI_{it} H_{it} + \alpha_3 H_{it} + \alpha_4 Y_{i0} + \alpha_5 A_{it} + \varepsilon_{it}$$

$g_{it}$   
 $FDI_{it}$   
 $H_{it}$   
 $Y_{i0}$

(69)

(1989-1980) (1979-1970)

:(De Mello, Luiz, **1999**)

(OECD)

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:(Manhal Shotar Basher Abdulrazag, 2003)

$$\text{Ln}Y = \alpha_0 + \alpha_1 \text{Ln}L + \alpha_2 \text{Ln}K + \alpha_3 \text{Ln}FDI + \alpha_4 \text{Ln}X + \varepsilon$$

:  
 :Y  
 :L  
 :K  
 :FDI  
 :X

(2000-1980)

.(Alfaro, 2006)

(1999 -1981) (47)  
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2002

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$$FDI = \alpha_0 + \alpha_1 N + \alpha_2 GDP + \alpha_3 GI + \alpha_4 GP + \alpha_5 DP + \alpha_6 DB + \varepsilon$$

:  
:GDP

:GI

:DP

:GP

:DB

:N

: FDI

:N

:GDP

:GP

:GI

:DB

:DP

:(2005 , )

( 10)

(2003 - 1995)

Dynamic

Generalized

.Panel Data

:(QMM) method of Moments

$$\begin{aligned}
G_{it} &= a + B_1 FDI_{it} + B_2(FDI^* H)_{it} + B_3H + BZ_{it} + U_{it} \\
i &= 1, \dots, N \quad t = 1, \dots, N
\end{aligned}$$

$\vdots$   
 $\vdots N$   
 $\vdots T_i$   
 $\vdots U$

$\vdots G$   
 $\vdots t$   
 $\vdots Z$   
 $\vdots FDI^* (H)$

H
FDI

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2004 1970

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2003 1976

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$$GDP = f(K, L, FDI, M)$$

L

K

GDP

M

FDI

(2008 , )

(QIZ) Qualified Industrial Zones

“Jordan-United States Free Trade Agreement” (JUSFTA)

Export-Lead ) ” –

“ .

(2005-1990)

(Growth Hypothesis

:(2009 , )

Simple regression

16

"(2006-1985) : (2009 , )

(1985 -2006)

Cobb-Douglas Production )

(Function

.(OLS)

(0.06)

(0.122)

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Vector (VAR)

.Auto Regression

sims (1980) Vector Autoregression (VAR)

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.(endogenous)

VAR

VAR

endogenous

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Ordinary Least Squares (OLS)

.consistent

policy analysis

VAR

random shocks ( )

– VAR

–

orthogonal innovations

innovations

: VAR

$$y_t = A_1 y_{t-1} + A_2 y_{t-2} + \dots + A_n y_{t-n} + B x_t + u_t$$

:

(Vector of endogenous variables)

$= y_t$

$$y_t = (g \ FDI_t)'$$

.

$: B, A_i, i=1, \dots, n$

(Vector of exogenous variables)

$: x_t$

.

$$u_t = (e_{1t} \ e_{2t})'$$

$: u_t$

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$: t$

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$: n$

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. Variance decomposition

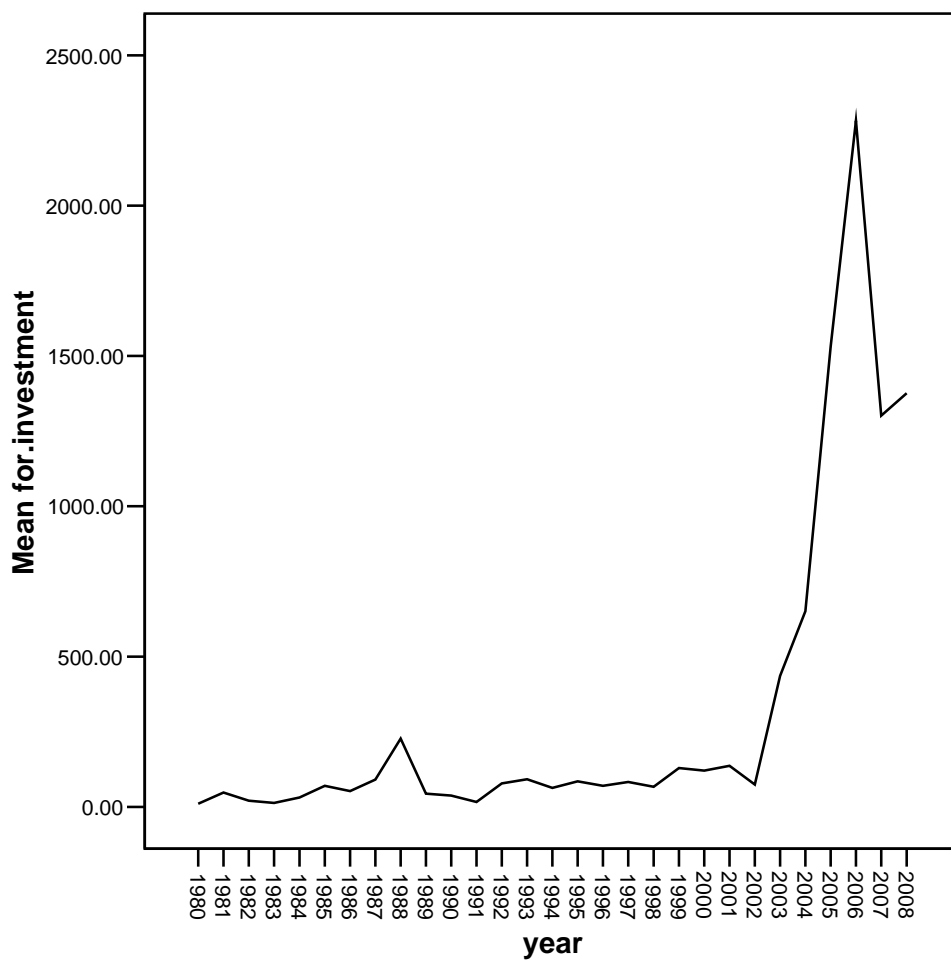
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1980

1988

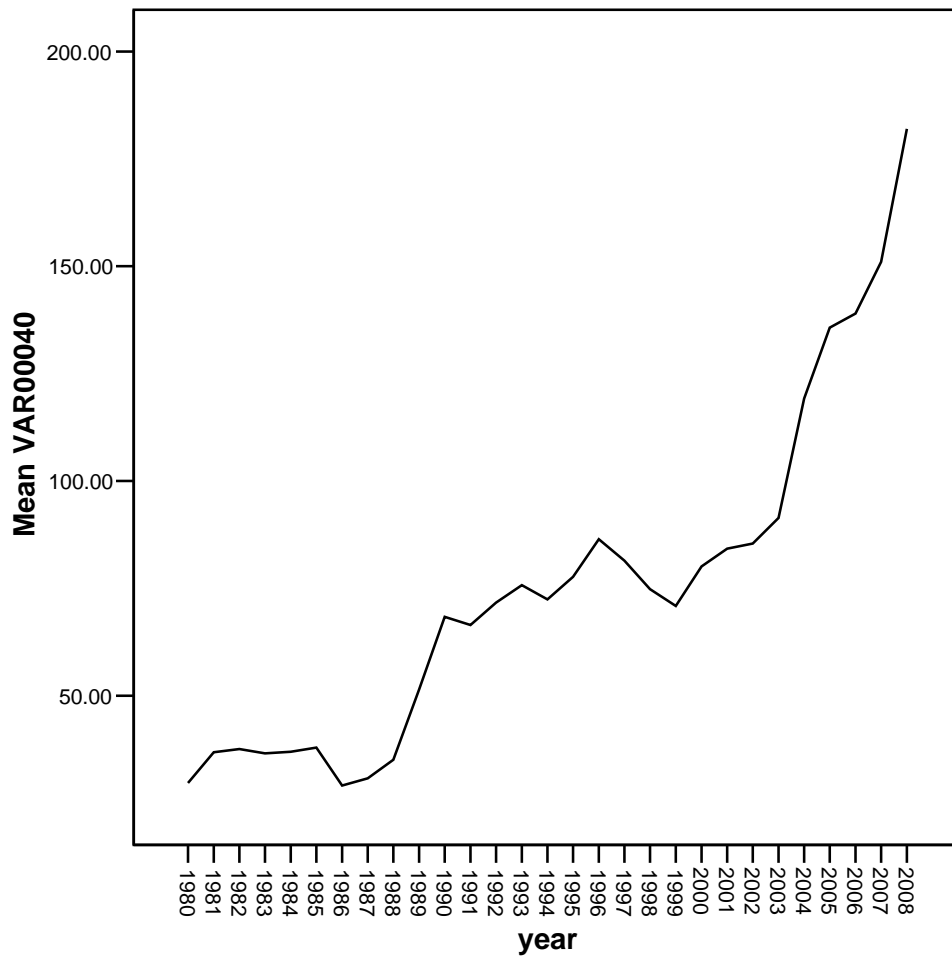
2002

1989

2006

2008-2007

.2006



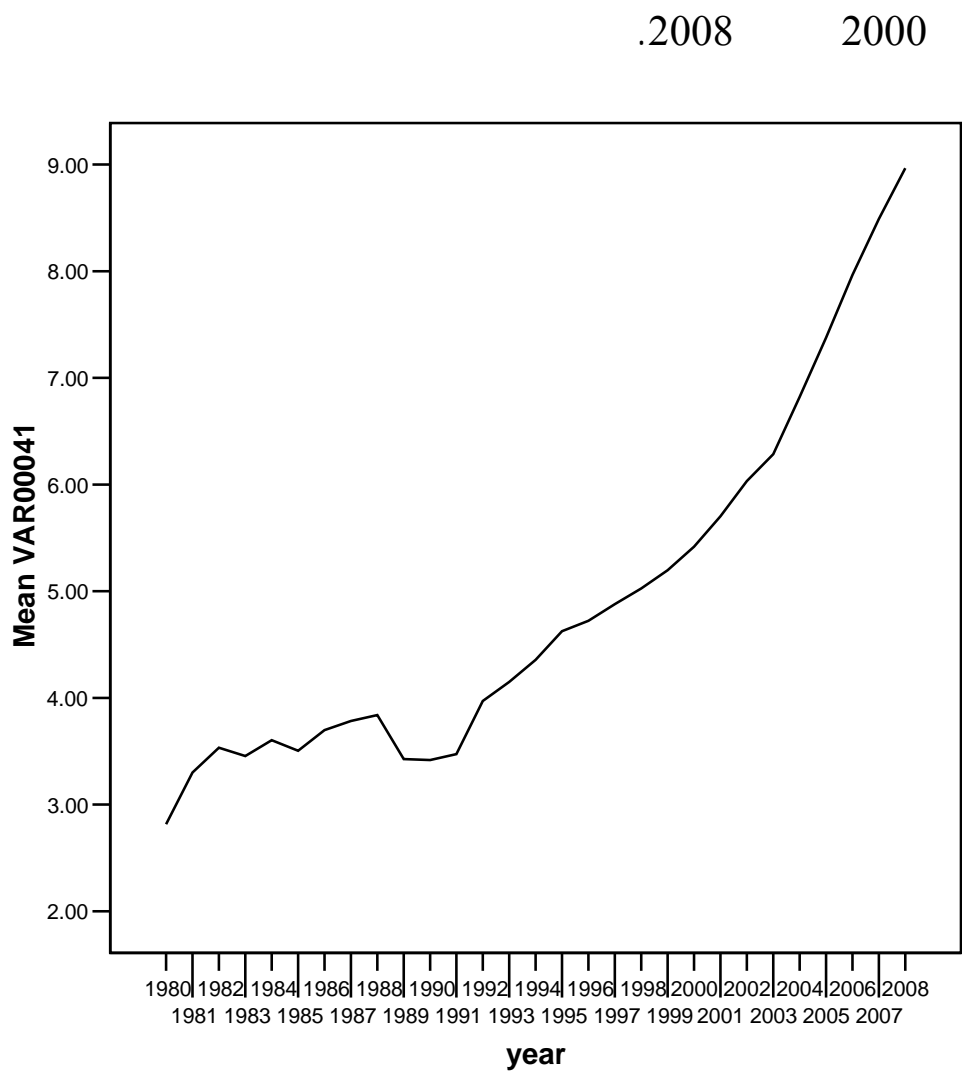
(2)

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1986

1985

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1990

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1990

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: **1.4**

: Eviews

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**(14)**

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**(ADF)**

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F**

2.97 3.00

2.97 5.08

2.97 1.65

2.97 3.95

2.97 0.89

(14)

%5

(VAR)

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$$\text{Growth} = 8.08 - 0.184\text{open} + 0.0024 \text{ foreigninv}$$

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Eviews

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0.000000	0.000000	100.0000	1
0.182034	1.158711	98.65925	2
0.352982	7.997819	91.64920	3
1.208763	15.85652	82.93471	4
1.477753	22.31327	76.20897	5
1.237416	27.92110	70.84148	6
0.930473	32.70889	66.36064	7
0.689614	36.20973	63.10065	8
0.518711	38.30978	61.17151	9
0.400557	39.32908	60.27036	10

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(18)

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0.000000	0.000000	100.0000	1
16.23805	4.919265	78.84269	2
21.84520	9.984181	68.17062	3
20.68042	14.36636	64.95321	4
19.73035	18.48763	61.78202	5
18.45316	22.92308	58.62377	6
17.89207	26.84249	55.26544	7
18.06157	29.80542	52.13301	8
18.97669	32.14384	48.87947	9
20.92860	34.03732	45.03408	10

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(18)

%19.73

%61.78

%20.92 %45.03

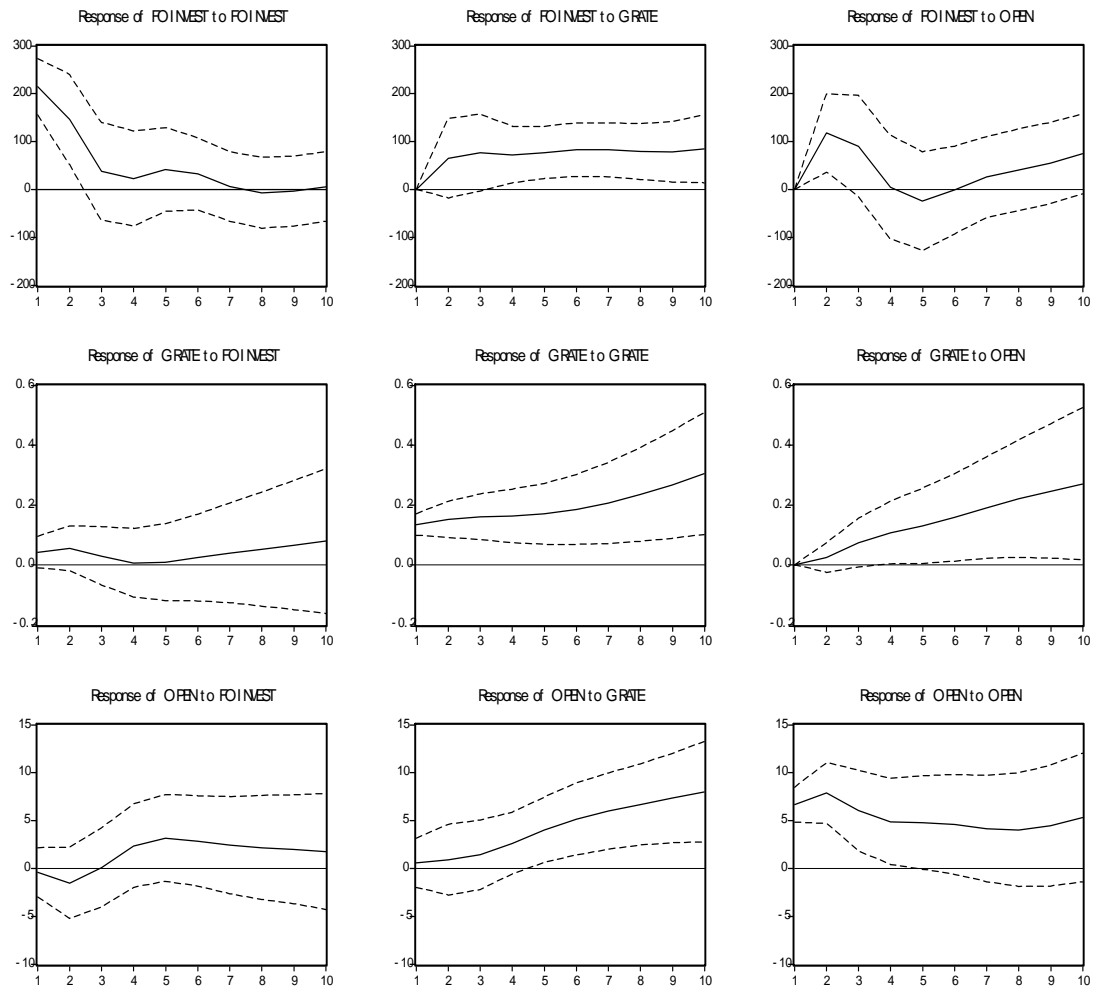
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## Impulse response

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Response to One S.D. Innovations  $\pm 2$  S.E.



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438/437

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2.817200 6	2818.1	29.66810972	715,977	120.1	10.4	1980
3.301346 599	3302.2	36.83907698	1047,50 5	169	47.7	1981
3.533265 644	3534.2	37.57851848	1142,49 3	185.6	20.9	1982
3.454777 314	3455.8	36.55882864	1103,31 0	160.1	13	1983
3.603141 148	3604.1	36.96900752	1071,34 0	261.1	31.4	1984
3.505472 166	3506.5	37.92100385	1074.4	255.3	70.30512	1985
3.698552 169	3699.5	29.07960535	850.2	225.6	52.77084	1986
3.784522 718	3785.5	30.75683529	915.5	248.8	91.04878	1987
3.839814 398	3840.8	35.07862945	1022.5	324.8	227.3779	1988
3.427579 809	3428.7	51.45098725	1230.0	534.1	43.98264	1989
3.418297 251	3419.3	68.37949288	1725.8	612.3	37.3524	1990
3.473315 831	3474.3	66.46230895	1710.5	598.6	16.36047	1991
3.971925 478	3972.8	71.6824406	2214.0	633.8	78.18874	1992
4.150142 952	4151.1	75.76064176	2453.6	691.3	91.97576	1993
4.357147 498	4358.1	72.4283518	2362.6	793.9	62.91891	1994
4.626758 258	4627.7	77.68005705	2590.3	1004.5	85.02252	1995
4.723320 447	4724.3	86.43396905	3043.6	1039.8	70.2694	1996
4.879532 005	4880.5	81.45272001	2908.1	1067.2	82.64852	1997
5.026629 258	5027.6	74.80308696	2714.4	1046.4	66.64869	1998
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5.417740 729	5418.7	80.09670216	3259.4	1080.8	120.7947	2000
5.703250 051	5704.2	84.25546089	3453.7	1352.4	136.64	2001
6.033154 673	6034.1	85.44604829	3599.2	1556.7	74.448	2002
6.285340 119	6286.3	91.42261744	4072.0	1675.1	436.113	2003
6.821878 633	6822.8	119.2076567	5799.2	2334.1	650.856	2004
7.377675 326	7378.6	135.7046052	7442.9	2570.2	1531.40	2005
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8.490461 757	8491.4	151	9722,194	3,183,7 07	1301.3	2007
8.966653 102	8967.6	182	11973,902	4,383,9 40	1376.2	2008

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